## BUREAU belongs to ORGANIZATION (1:N)

Each organization can only belong to one bureau. There never exists a situation where an organization belongs to more than one bureau. Therefore, each bureau is made up of several unique organizations.

ORGANIZATION performs WORKLOAD (1:N)

Each organization can have many workloads. This is because an organization can work on multiple projects and activities over several fiscal periods.

PROJECT belongs to WORKLOAD (1:N)

Each project may exist in many workloads. This is because a project is worked on by many organizations under many activities.

ACTIVITY belongs to WORKLOAD (1:N)

Each activity may exist in many workloads. This is because an activity is made up of the work of many organizations working on many projects.

## 3 Data Accumulation Process

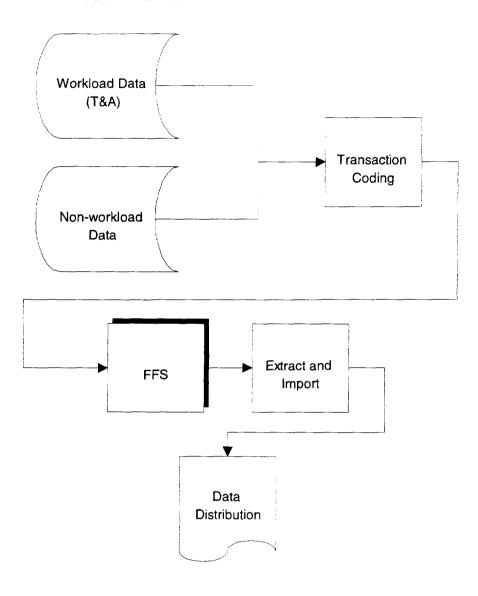
The Data Accumulation Process is composed of two steps:

- 1. Transaction Coding
  - Workload transactions in PC-TARE
  - Non-workload transactions in FFS
- 2. Data Extraction & Importation
  - Export cost information from FFS
  - Import cost data into the Cost Reporting System application.

Workload data and non-workload data must be assigned an activity code and project code. PC-TARE, the time and attendance remote entry system, is used to code workload data. This data is subsequently entered into FFS by the use of an interface with the National Finance Center. Non-workload data is entered directly into FFS. Once the cost data exists in FFS, a data extraction program is used to retrieve monthly cost data. This data is then imported into the Cost Reporting System which performs the data distributions.

Figure 3-1

#### **Data Accumulation Process**



#### 3.1 Cost Data Extraction Process

The Cost Data Extraction Process is a COBOL program that is executed when the FCC runs the monthly close process in FFS. This program extracts costs data form the FFS journal account 4900 with the following fields: fiscal year, period, cost organization code, activity code, project code, and cost. The cost data is extracted to a flat file which is then imported into the Cost Reporting System.

## 3.2 Payroll Data Extraction Process

The Payroll Data Extraction Process is a COBOL program that is executed when the FCC runs the monthly close process in FFS. This program extracts payroll cost data with the following fields: fiscal year, period, social security number, and cost. This data is used in calculating the cost data in the Compliance and Information Bureau. For more information, see section 5 entitled Compliance and Information Bureau.

# Distribution of Costs Process

The Distribution of Costs Process is composed of two steps:

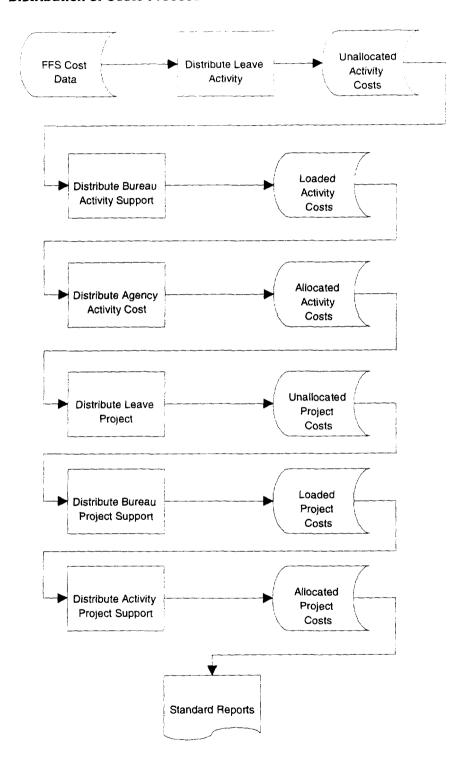
- 1. Activity Cost Distribution
  - Leave
  - Bureau/Office Support
  - Agency Level Support Legal Services & Executive Direction
- 2. Project Cost Distribution
  - Leave
  - Bureau/Office Support
  - Agency Support

The diagram, Distribution of Costs Process, shows the allocation processes that take place to the data captured by the separate Data Accumulation process, as documented in the previous section.

Once the cost data from FFS has been extracted and imported into the software application designed to handle the cost reporting, the data distribution process takes place. These distributions are explained in the following sections.

Figure 4-2

#### **Distribution of Costs Process**



## 4.1 Activity Related Costs

Three sets of rules are used to distribute activity related costs. The first set of rules distributes an organization's Leave Costs among the activities that the organization supports. The second set of rules distributes a bureau's Bureau/Office Direction & Support Costs among its programmatic activities on a prorated basis. The final set of rules distributes Legal Services and Executive Direction & Support Costs to all organizations that have programmatic activity costs on a prorated basis. The net result is that each organization has costs that are direct and indirect.

#### Leave

The Leave Activity is designed to capture all leave costs specific to an organization. This activity cost is distributed among all of the activities for which an organization has costs. The distribution is based on the percent that each of the organization's activity costs represent of the total organization's costs.

As an example, organization 1820 has a Leave Activity Cost of \$1,000. This cost is allocated to activity 20, 30, and 40 because organization 1820 has incurred costs for these activities. The exact proportions to distribute are calculated below.

#### **Leave Activity Cost**

| Organization Code | Activity Code | Project Code | Cost       |
|-------------------|---------------|--------------|------------|
| 1820              | 99            | L99          | \$1,000.00 |

### Organization's Activity Costs

| Organization Code | Activity Code | Cost        | % of Bureau Cost |
|-------------------|---------------|-------------|------------------|
| 1820              | 20            | \$10,000.00 | 25%              |
| 1820              | 30            | \$20,000.00 | 50%              |
| 1820              | 40            | \$10,000.00 | 25%              |

## Leave Activity Costs Distributed Among Activities

| Organization Code | Activity Code | Project Code | Cost     |
|-------------------|---------------|--------------|----------|
| 1820              | 20            | L99          | \$250.00 |
| 1820              | 30            | L99          | \$500.00 |
| 1820              | 40            | L99          | \$250.00 |

### Bureau/Office Support

The Bureau/Office Direction & Support Activity is designed to capture overhead work that is specific to a bureau. These activity costs are distributed among the programmatic activities that the bureau supports. The distribution is based on the percent that each programmatic cost represents of the total bureau's programmatic costs.

As an example, organization 0801 has Bureau/Office Direction & Support Costs of \$1,000,000.00. This cost is spread to activities 10, 30, & 40 because organization 0801's bureau supports these programmatic activities in the following percents: 25%, 50%, and 25%.

#### Bureau/Office Direction & Support Cost

| Organization Code | Activity Code | Project Code | Cost           |
|-------------------|---------------|--------------|----------------|
| 0801              | 80            | S02          | \$1,000.000.00 |

### Bureau's Programmatic Costs

| Bureau Code | Activity Code | Cost            | % of Bureau Cost |
|-------------|---------------|-----------------|------------------|
| 08          | 10            | \$12,500,000.00 | 25%              |
| 08          | 30            | \$25,000,000.00 | 50%              |
| 08          | 40            | \$12,500,000.00 | 25%              |

Bureau/Office
Direction & Support
Costs Distributed
Among
Programmatic
Activities

| Organization Code | Activity Code | Project Code | Cost         |
|-------------------|---------------|--------------|--------------|
| 0801              | 10            | S02          | \$250,000.00 |
| 0801              | 30            | S02          | \$500,000.00 |
| 0801              | 40            | S02          | \$250,000.00 |

## Legal Services and Executive Direction & Support

The next level of support costs to distribute are Legal Services and Executive Direction & Support. All organizations that have programmatic costs receive a prorated portion of the costs pooled under Legal Services and Executive Direction & Support. The methodology is the same as used for distributing Bureau/Office Direction & Support costs.

As an example, the total Activity Support Costs of the entire FCC are \$500,000. This cost is spread to activities 10, 20, & 40 because organization 1220, which in this example represents all of the FCC's programmatic costs,

supports these programmatic activities in the following percents: 40%, 10%, and 50%.

## **Programmatic Activity Costs**

| Organizat | ion Code | Activity Code | Project Code | Cost         |
|-----------|----------|---------------|--------------|--------------|
| 122       | 20       | 10            | N01          | \$400,000.00 |
| 122       | 20       | 20            | N02          | \$100.000.00 |
| 122       | 20       | 40            | N03          | \$500,000.00 |

# Activity Support Costs

| Organization Code | Activity Code | Project Code | Cost         |
|-------------------|---------------|--------------|--------------|
| 1100              | 70            | S01          | \$500,000.00 |

Activity Support
Costs Distributed
Among
Programmatic
Activities

| Organization Code | Activity Code | Project Code | Cost         |
|-------------------|---------------|--------------|--------------|
| 1220              | 10            | N01          | \$200,000.00 |
| 1220              | 20            | N02          | \$ 50,000.00 |
| 1220              | 40            | N03          | \$250,000.00 |

### Total Direct & Indirect Costs

| Organization Code | Activity | Direct Cost  | Indirect Cost | Total        |
|-------------------|----------|--------------|---------------|--------------|
| 1220              | 10       | \$400,000.00 | \$200,000.00  | \$600,000.00 |
| 1220              | 20       | \$100,000.00 | \$ 50,000.00  | \$150,000.00 |
| 1220              | 40       | \$500,000.00 | \$250,000.00  | \$750,000.00 |

## 4.2 Project Related Costs

Another set of rules distributes costs to the fee projects. As with the activity related costs, the project related costs have leave costs, bureau overhead and agency overhead.

Leave

The Leave Project is designed to capture Leave Project Costs specific to an organization. Leave Costs are distributed among the Section 8 and Section 9 projects for which an organization has costs. The distribution is based on the

percent that each Section 8 and/or Section 9 project represents of the total organization's recoverable project costs. The following example shows the above:

#### **Leave Project Cost**

| Organization Code | Project Code | Cost       |
|-------------------|--------------|------------|
| 1820              | L99          | \$1,000.00 |

## Organization's Project Costs

| Organization Code | Project Codes | Cost        | % of Bureau Cost |
|-------------------|---------------|-------------|------------------|
| 1820              | N01           | \$10,000.00 | 12.5%            |
| 1820              | N02           | \$30,000.00 | 37.5%            |
| 1820              | N03           | \$40,000.00 | 50.0%            |

## Leave Project Costs Distributed Among Projects

| Organization Code | Project Code | Cost     |
|-------------------|--------------|----------|
| 1820              | N01          | \$125.00 |
| 1820              | N02          | \$375.00 |
| 1820              | N03          | \$500.00 |

## Bureau Project Support

The Bureau/Office Support Project is designed to capture overhead work that is specific to a bureau. These project costs are distributed among the Section 8 and Section 9 projects that the bureau supports. The distribution is based on the percent that each Section 8 and/or Section 9 project cost represents of the total bureau's recoverable project costs. The following example shows how this process works.

### Bureau/Office Project Support Cost

| Organization Code | Project Code | Cost        |
|-------------------|--------------|-------------|
| 2001              | S02          | \$50,000.00 |

### Bureau's Programmatic Costs

| Bureau Code | Project Codes | Cost       | % of Bureau Cost |
|-------------|---------------|------------|------------------|
| 20          | N04           | 30,000,000 | 30%              |
| 20          | N05           | 60,000,000 | 60%              |
| 20          | N06           | 10,000,000 | 10%              |

Bureau/Office Project Support Costs Distributed Among Projects

| Organization Code | Project Code | Cost        |
|-------------------|--------------|-------------|
| 2001              | N04          | \$15.000.00 |
| 2001              | N05          | \$30,000.00 |
| 2001              | N06          | \$ 5.000.00 |

## Agency Project Support

The next level of support costs to distribute are Agency Project Support. All organizations that have Section 8 and Section 9 project costs receive a prorated portion of the costs pooled under Agency Support. The methodology is the same as used for distributing Bureau/Office Project Support costs.

# **Programmatic Activity Costs**

| Organization Code | Activity Code | Project Code | Cost         |
|-------------------|---------------|--------------|--------------|
| 1500              | 10            | N01          | \$400,000.00 |
| 1500              | 20            | N02          | \$100,000.00 |
| 1500              | 40            | N03          | \$500,000.00 |

## Activity Support Costs

| Organization Code | Activity Code | Project Code | Cost         |
|-------------------|---------------|--------------|--------------|
| 1100              | 70            | S01          | \$200,000.00 |

Activity Support Costs Distributed Among Programmatic Activities

| Organization Code | Project Code | Cost         |
|-------------------|--------------|--------------|
| 1500              | N01          | \$ 80,000.00 |
| 1500              | N02          | \$ 20,000.00 |
| 1500              | N03          | \$100,000.00 |

Total Direct & Indirect Costs for Organization 1500 by Project Code

| Organization Code | Project | Direct Cost  | Indirect Cost | Total        |
|-------------------|---------|--------------|---------------|--------------|
| 1500              | P01     | \$400,000.00 | \$ 80,000.00  | \$480,000.00 |
| 1500              | P02     | \$100,000.00 | \$ 20,000.00  | \$120,000.00 |
| 1500              | P03     | \$500,000.00 | \$100,000.00  | \$600,000.00 |

## 5

# Compliance & Information Bureau

Cost data for the Compliance and Information Bureau has its own allocation process. Since the field offices do not use PC-TARE, a separate application was developed in order to record the breakdown of hours worked by activity and project for a particular employee. This application is called the Time Recording System (TRS).

Once the timekeeper at the field office completes the data entry for a particular pay period, each employee's reported workload is transmitted to the CRS and is used in converting the FFS payroll costs of the field offices into usable cost data. In order to perform this conversion, four steps take place. These steps are explained in the following sections.

## 5.1 FFS Payroll Data Extract

When the monthly close process is executed in FFS, a payroll data extraction program runs. This program obtains the actual cost, which is an employee's direct salary cost plus fringe benefits, for that particular period. In the examples that follow, the three employees are considered part of the same organization.

### FFS Payroll Data Extract Sample

| Fiscal Year | Period | SSN         | Cost       |
|-------------|--------|-------------|------------|
| 95          | 1      | 232-44-6789 | \$1,000.00 |
| 95          | 1      | 444-67-3412 | \$2,000.00 |
| 95          | 1      | 046-33-8724 | \$3,000.00 |

This cost data is used in the following step to obtain an employee's loaded salary rate.

#### 4.3

## 5.2 Loaded Salary Rate

Each employee's loaded salary rate is his or her regular rate plus the cost of their fringe benefits. Combining these two costs to provide a loaded salary rate is a method to obtain a more accurate representation of an employee's cost rate in a given period. This loaded rate is calculated by taking the employee's total payroll cost in a month and dividing it by the number of hours reported worked in TRS.

## TRS Reported Hours

| Fiscal Year | Period | SSN         | Hours |
|-------------|--------|-------------|-------|
| 95          | , 1    | 232-44-6789 | 100   |
| 95          | 1      | 444-67-3412 | 120   |
| 95          | 1      | 046-33-8724 | 130   |

### **Loaded Salary Rate**

| Fiscal Year | Period | SSN         | FFS Cost   | Hours | Loaded Rate |
|-------------|--------|-------------|------------|-------|-------------|
| 95          | 1      | 232-44-6789 | \$1,000.00 | 100   | \$10.00     |
| 95          | 1      | 444-67-3412 | \$2,000.00 | 120   | \$16.67     |
| 95          | 1      | 046-33-8724 | \$3,000.00 | 130   | \$23.07     |

The loaded rate is then used in the following section to obtain an employee's cost by activity and project.

## 5.3 Percent Cost by Activity and Project

Each employee's percent cost by activity and project is calculated by multiplying the employee's loaded salary rate by the hours worked on each activity and project. This extended cost is then used to determine the percent cost for each activity and project of the organization.

#### Cost for Project 1

| Fiscal Year | Period | SSN         | Loaded Rate | Project 1<br>Hours | Cost      |
|-------------|--------|-------------|-------------|--------------------|-----------|
| 95          | 1      | 232-44-6789 | \$10.00     | 40                 | \$400.00  |
| 95          | 1      | 444-67-3412 | \$16.67     | 60                 | \$1000.20 |
| 95          | 1      | 046-33-8724 | \$23.07     | 30                 | \$692.10  |

### **Cost for Project 2**

| Fiscal Year | Period | SSN         | Loaded Rate | Project 1<br>Hours | Cost      |
|-------------|--------|-------------|-------------|--------------------|-----------|
| 95          | 1      | 232-44-6789 | \$10.00     | 60                 | \$600.00  |
| 95          | 1      | 444-67-3412 | \$16.67     | 60                 | \$1000.20 |
| 95          | 1      | 046-33-8724 | \$23.07     | 100                | \$2307.00 |

## Percent Cost by Project

| Fiscal<br>Year | Period | SSN         | Project 1 | Project 1<br>Cost | Project 2 | Project 2<br>Cost |
|----------------|--------|-------------|-----------|-------------------|-----------|-------------------|
| 95             | 1      | 232-44-6789 | 6.67%     | \$400.20          | 10.0%     | 600.00            |
| 95             | 1      | 444-67-3412 | 16.67%    | \$1000.20         | 16.67%    | 1000.20           |
| 95             | 1      | 046-33-8724 | 11.54%    | 692.40            | 38.45%    | 2307.00           |

Based on the last table, Project 1's costs are \$2,092.80 and Project 2's costs are \$3,907.20.

Though the above example shows only a distribution for projects, it also applies to activity costs.

## 6 Reports

The CRS has seven standard reports. These reports meet requirements for information as determined by the key users of the system.

# 6.1 Unallocated Costs by Activity and Organization

This report shows undistributed cost data organized by activity code and organization code. All costs within each activity code are totaled and shown at the end of each activity's section. The report also shows the total cost accumulated by the entire FCC. This report includes costs for Reimbursable Agreements and Spectrum Auction.

# 6.2 Allocated Costs by Activity, Organization, and Project - Excluding Reimbursable Agreements and Spectrum Auction

This report shows the direct and indirect cost assigned to each organization by programmatic activity. Direct costs are those costs that an organization incurred on its own or were incurred for that organization by a CAM. Indirect costs represent that organizations fair share of the FCC's support costs. Indirect costs may be comprised of Bureau/Office Direction & Support Costs, Legal Services Costs, and/or Executive Direction & Support Costs. Subtotals of costs for each programmatic activity by direct, indirect, and total costs are given as well as a grand total by direct, indirect, and total costs. This report does not include any costs associated with Reimbursable Agreements and Spectrum Auction.

# 6.3 Allocated Costs by Activity, Bureau, and Project - Excluding Reimbursable Agreements and Spectrum Auction

This report is similar to the report Direct and Indirect Cost Distribution by Activity and Organization. The only difference is that costs are by bureau and not by organization. This report serves to provide a more general picture of the FCC's cost. This report does not include any costs associated with Reimbursable Agreements and Spectrum Auction.

## 6.4 Allocated Costs by Bureau, Activity, and Project - Excluding Reimbursable Agreements and Spectrum Auction

This report provides a direct and indirect cost distribution by bureau. Each bureau's costs are broken down by programmatic activity. Subtotals of costs for each bureau by direct, indirect, and total costs are given as well as a grand total by direct, indirect, and total costs. This report does not include any costs associated with Reimbursable Agreements and Spectrum Auction.

# 6.5 Allocated Costs by Project and Activity Excluding Reimbursable Agreements and Spectrum Auction

This report shows direct and indirect costs by Section 8 and Section 9 fee projects. Project fee costs are broken down by programmatic activity. Subtotals of costs for each project by direct, indirect, and total costs are given as well as a grand total by direct, indirect, and total costs. This report does not include any costs associated with Reimbursable Agreements and Spectrum Auction.

# 6.6 Allocated Costs by Project and Activity - Including Reimbursable Agreements and Spectrum Auction

This report shows costs for all projects with each projects' costs broken down further to the activity level. Subtotals of costs for each project by direct, indirect, and total costs are given as well as a grand total by direct, indirect, and total costs. This report shows Section 8, Section 9, Reimbursable Agreements, and Spectrum Auction project costs.

# 6.7 Allocated Costs by Project - Excluding Authorization of Service, Reimbursable Agreements, and Spectrum Auction

This report shows costs by project with each project's costs broken down further to the activity level. Subtotals of costs for each project by direct, indirect, and total costs are given as well as a grand total by direct, indirect, and total costs. This report shows Regulatory Fee, Reimbursable Agreements, and Spectrum Auction project costs only; project costs for Authorization of Service work are not included.



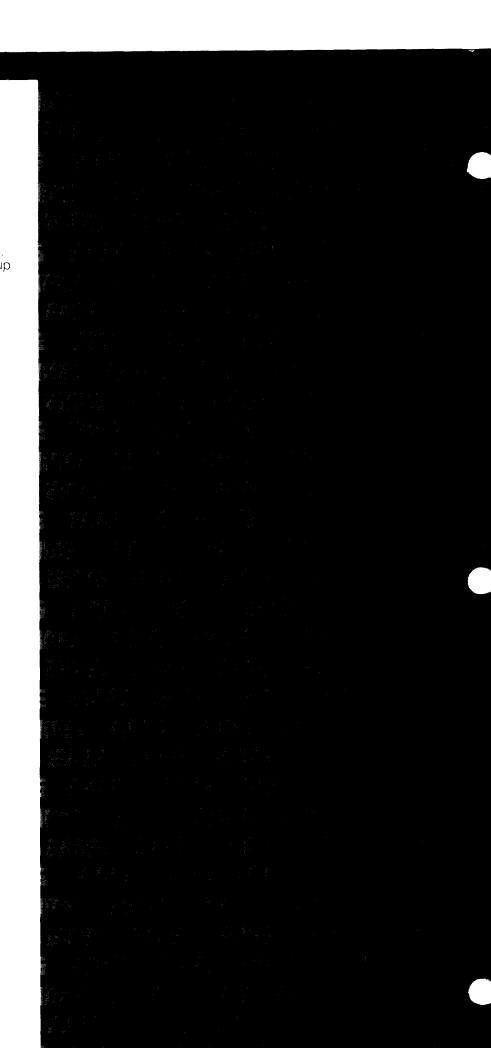
American Management Systems, Inc. Management Systems and Technology Group 1777 North Kent Street Arlington, Virginia 22209 (703) 841-6421 (703) 841-6704 FAX

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# Cost Reporting System - Installation Instructions

Prepared for

Federal Communications
Commission

November 3, 1995

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1

# **Cost Reporting System**Installation

In order to install the Cost Reporting System (CRS), several steps must be followed. These steps are:

- 1) Load install disk.
- 2) Configure PC.
- 3) Add CRS Icon to Desktop.
- 4) Obtain User ID and Password.

These steps must be followed in this order. If they are performed out of order, the system may not load properly and/or you may obtain error messages.

## 2 Load Install Disk

Installation of the CRS is accomplished by following the following steps:

- 1) Insert CRS Installation Disk into A: drive of the PC.
- 2) Go to DOS prompt.
- 3) Type the following command: a:\install.bat
- 4) Wait for the installation to finish. If the installation is successful, the following message will appear: CRS Installation Successful.
- 5) Exit the DOS environment.

With a successful installation, the user should proceed to step #2 - Configure PC.

## 3

# **Configure PC**

In order to run the CRS, the user must make a copy of the PARADOX for Windows configuration file ODAPI.cfg. Below are the steps necessary to copy and to properly configure ODAPI.cfg. Failure to properly configure the ODAPI.cfg file may prevent a user from accessing the application and/or possibly from performing actions in the application.

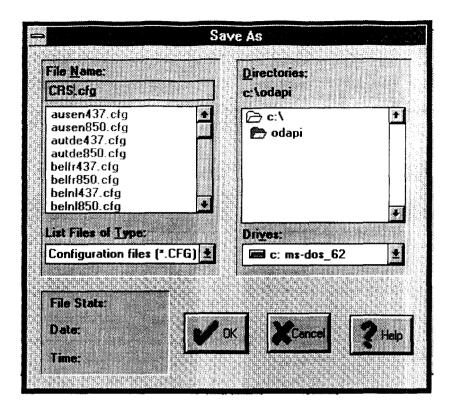
If a user has already set up a configuration file, then a new copy should not be made. Instead, these users should double click on the Paradox for Windows ODAPI Configuration Utility icon (step #1 below), select the Alias icon, and follow the instructions starting with step #7.

Please note that the directory locations indicated in the following section may change. In order to ensure proper configuration, the user should contact their network administrator to verify the directory locations before proceeding.

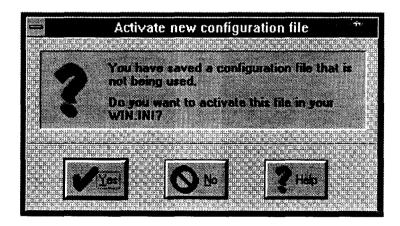
1. Double click on the Paradox for Windows ODAPI Configuration Utility icon.



- 2. From the File Menu, select SAVE AS.
- 3. Enter a file name. Please use the name CRS.cfg.



- 4. Click on OK
- 5. Select Yes in the Activate new configuration file dialog box.



6. The title of the open window should now read ODAPI Configuration c:\odapi\crs.cfg. Select the Aliases icon on this window.

